İlker Arslan, PhD

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AREAS OF EXPERTISE

Risk management	Credit risk, IFRS9
Data science & statistics, analytics	Machine learning & deep learning
Project finance	Internal audit

PROFESSIONAL EXPERIENCE

EXPERIAN, Istanbul, Turkey   November 2019 – Present

Data Science Research Center Lead, Senior Data Scientist

Working on advanced research and development, to enhance relationships with clients, acquire strategic datasets and provide new and innovative solutions via product prototyping. Evaluation and acquisition of new data assets, new product prototyping as well as sales support and consultancy. Inventing and modifying advanced innovative algorithms and applying them to large data sets to solve difficult business problems.

▸ Managed various projects including credit scoring with web data.
▸ Initiated an innovation project to apply reinforcement learning models to existing problems in finance.
▸ Initiated and managed a project to develop an automated machine learning & analytics platform which became one of the most important innovation projects in the region.
▸ Prepared and delivered "Deep Learning with Julia" training for EMEA analytics teams.

HSBC, Istanbul, Turkey   June 2017 – November 2019

Wholesale Credits Risk Analytics Senior Manager

Manage Wholesale Credits Risk Analytics function. Undertake quantitative analysis tailored to senior management providing understanding on the IFRS9 implications for Turkey. Development and validation of Wholesale Credits Risk Models and Risk Reporting. Use expert knowledge to assist with model implementation and model methodology. Provide advice and statistical insight into risk models, assist in capital impact assessments for model changes, on-going reviews of wholesale models. Conduct stress testing studies.

▸ Developed Through the Cycle and Point in Time Probability of Default Models.
▸ Engaged in BRSA ICAAP and PRA stress testing processes.

KIBAR HOLDING, Istanbul, Turkey   December 2014 – June 2017

Group Internal Audit Manager

Operational, performance, financial and compliance audit of group companies and investment projects. Evaluation of effectiveness and efficiency of processes and operations of group companies. Planning, implementation and follow up of risk-based audit. Provide assurance and consultancy services to assist management to meet objectives. Monitoring quality and continuous improvements in the organization's control processes.

▸ Reviewed procedures, processes and controls of Group companies and proposed improvements.
▸ Participated as consultant in various investment projects.
▸ Established fraud investigation policy and procedures.

ZIRAAT BANK, Istanbul, Turkey   February 2014 – December 2014

Project Finance Manager

Evaluation and analysis of project finance proposals including infrastructure, energy and PPP projects. Financial modeling and analysis of projects and sponsor firms.

▸ Analyzed and modeled various large-scale project finance proposals.
▸ Wrote the procedure of Project Analysis Department.
▸ Managed the project to integrate project analysis workflow to the core banking system.

HSBC, Istanbul, Turkey   June 2013 – February 2014

Corporate and Commercial Banking Product Manager

Management and governance of corporate and commercial banking core products with specific responsibility for the profitability and overall customer satisfaction for the product set. Search, collate and high-level evaluation of new product concepts. Management of product life cycle for the product set, delivery of product enhancements. Undertake

product performance reviews and make proposals to maintain and enhance competitor advantage and market share. Represent Corporate and Commercial Banking in various projects.

▸ Wrote or contributed to various product policies.
▸ Implemented product suitability study and prepared product-customer risk matrices for Turkey market.

IS BANK, Izmir, Turkey   March 2009 – July 2012
Assistant Manager, Corporate Sales, Aegean Corporate Branch
Manage corporate credit portfolio with the objectives of increasing portfolio deposits, mitigating risk, and maximizing profitability. Analyze new credit proposals, and periodically review credit limits with existing customers to minimize account delinquencies and ensure portfolio stability. Manage and coordinate activities of sales teams and assess feasibility of project finance proposals. Evaluate financial tables and models for corporate firms and feasibility of large-scale investment projects. Regularly follow financial robustness of firms and projects.

▸ Evaluated and approved credit proposals of corporate firms with analysis of financial tables.
▸ Performed feasibility and sensitivity analysis of project finance proposals, and pre-approved credit allocation.
▸ Exceeded 100% of end-of-year targets for portfolio growth, credits, and profitability for 3 consecutive years.

IS BANK, Izmir, Turkey   June 2008 – March 2009
Assistant Manager, Operations, Aegean Corporate Branch
Management of back office operations across the credit, accounting, foreign trade, and foreign exchange functions.

▸ Participated in the redesign and centralization of back office operations.
▸ Developed and implemented standardized workflow procedures that reduced errors to a negligible level.

IS BANK, Izmir, Turkey   August 1999 – June 2008
Internal Auditor
Continually reviewed existing internal controls and implemented new measures to ensure the highest level of financial integrity and strength. Performed financial analyses of corporate and commercial credits, assessed collateral/financial statements and cash management systems, and conducted profitability analyses of bank branches and departments.

ACADEMIC EXPERIENCE

BAHCESEHIR UNIVERSITY, Istanbul, Turkey   September 2014 – Present
Part Time Lecturer
▸ Graduate lectures: Portfolio Management, Global Financial Markets, Risk Evaluation in Banks.
▸ Advisor to master's thesis: Relationship Between the Macro-Economic Factors and Default Rate.
▸ Advisor to Final Projects: "Effects of Private Equities on Firm Financial Performance", "Evaluation of Portfolio Performance of Turkish Equity Investment Funds", "Fintech Industry Outlook in Turkey", "Mergers and Acquisitions, Private Equity Funds and the Fiat Chrysler Automobiles Case"

OZYEGIN UNIVERSITY, Istanbul, Turkey   Fall 2019 - Present
Part Time Lecturer, Graduate lecture: R for Financial Data Analysis

MEF UNIVERSITY, Istanbul, Turkey   Spring 2016-2017
Part Time Lecturer, Graduate lecture: Big Data in Finance

ISTANBUL TECHNICAL UNIVERSITY, Istanbul, Turkey   Spring 2016-2017
Part Time Lecturer, Undergraduate lecture: Introduction to Economics

UNIVERSITA POLITECNICA delle MARCHE, Ancona, Italy   September 2012 - December 2012
Visiting Researcher
▸ Finished PhD thesis under supervision of Prof. Mauro Gallegati.
▸ Carried out research on complex adaptive systems, social and economic networks, credit networks, financial networks, agent based modeling, and financial instability.

EDUCATION / LICENSES / TRAINING

PhD, Economics, Izmir University of Economics – Graduate School of Social Sciences
- Dissertation: How Behavior of Banks Affect Formation of Crises? An Agent Based Modeling Approach

M.A., Financial Economics, Izmir University of Economics – Graduate School of Social Sciences
- Dissertation: Analysis of Credit Default Swaps in Turkey

BSc, Industrial Engineering, Bilkent University
- Full Scholarship; Honor Degree

Licensure
- Capital Markets Activities Level 3 Licence & Derivatives Instruments Licence by Capital Markets Board of Turkey
- Certified Internal Auditor

PUBLICATIONS

Papers
- Long Term Impacts of Bank Behavior on Financial Stability. An Agent Based Modeling Approach, İ. Arslan, E. Caverzasi, M. Gallegati, A. Duman, Journal of Artificial Societies and Social Simulation (JASSS), 2016, 19(1)
- "Does Size of Banks Really Matter? Evidence from Credit Default Swaps Market Data", İlker Arslan, Ayla Oğuş Binatlı, İktisat, İşletme ve Finans, 2014, 29(338), 67-90.
- An Agent Based Modeling Approach to the Check Payments Among SMEs in Turkey, İlker Arslan, Alper Duman, İktisat, İşletme ve Finans, 2013, 28(332), 67 – 86.
- Basel Accords: Lessons for Turkey, M. Karaçal, E.Can, İ.Arslan, J.of Business, Econ., and Finance, 2013, 2(4), 19 – 32.
- An Empirical Analysis of Turkish Credit Default Swaps, H. Baklacı, İ. Arslan, Ekonomik Yaklaşım, 2006, 17(60).

Books
- "R ile İstatistiksel Programlama" (Statistical Programming in R), Pusula Publishing, October 2015.
- "Python ile Veri Bilimi" (Data Science with Python), Pusula Publishing, March 2019.

TECHNICAL SKILLS

<u>Programming Languages:</u> Python, R, Julia, Matlab, C++